

# HOUSING

## INTRODUCTION

*This element assesses Boone County's housing supply and presents a plan for future housing growth. The housing market is a basic economic operation which is regulated by demand and supply. Demand is comprised of all individuals within the county or wishing to enter the county. Births, deaths, migration, marital status, and a multitude of economic facts all have a profound impact on current and future demand. High interest rate periods, such as the early 1980's, usually decrease housing demand and building activity, and, therefore, increase occupancy rates. Low interest rates, a multitude of financing options, and job growth have combined with the availability of public regional sanitary sewer service from the mid 1990's to result in the greatest rate of housing construction ever experienced in the county. However, the housing industry has experienced a considerable downturn since the last update of the Comprehensive Plan. Despite this, Boone County has a home ownership rate of approximately 76%, which exceeds the national rate of 65%. Supply is responsive to demand and includes both existing and planned housing stock. Aside from the number of housing units, housing supply analysis is a study of the variety of housing types and the constantly changing market demand. This element contains three sections. The first is an analysis of Housing Demand, which is closely related to the Population and Economy Elements of the Comprehensive Plan. Second is a study of current Housing Supply and planned housing development. The last section, Meeting Housing Needs, combines major findings of demand and supply in order to determine future housing needs and to forecast housing growth by area of Boone County. It should be noted that all findings are macro in scale and are not intended to describe individual neighborhoods.*

## HOUSING DEMAND

### Population Trends

Two major population factors affect the housing demand in regards to total numbers of housing units. These are the total population and the average household size. Except for institutions or other forms of group housing, households are defined as the person(s) occupying a housing unit. As a result, the number of households equals the number of occupied housing units, not the total number of housing units. For this reason, the number of households forecasted in the Housing Element is less than the respective number of housing units forecasted in the following Housing Supply section of the Housing Element. The difference in the two is represented by the overall vacancy rate of housing units. Total population, households, and people per household are shown in **Table 6.1**.

**Table 6.1** shows that Boone County has not attained the 2010 population forecast of 121,080 made a few years ago by the State Data Center in Louisville, but is continuing to increase nonetheless. The people per household figures have continued to decrease each decade, but are expected to level off at some point in the next couple of decades. These figures are typically higher than the state or national average, reflecting the relatively young age statistics in the Population Element.

**TABLE 6.1 BOONE COUNTY POPULATION AND HOUSEHOLDS**

	1980	1990	2000	2010	2020	2030
<b>Population</b>	45,842	57,589	85,991	118,811	153,933	190,270
<b>Households</b>	14,848	20,127	31,258	43,216	57,870	71,530
<b>People per H.H.</b>	3.09	2.85	2.73	2.73	2.66	2.66

Source: U.S. Census; KY State Data Center estimate (University of Louisville)

**Table 6.1** reveals an important trend where household sizes are continuing to decrease, but are expected to level off by 2020. The household projections are used as a general guideline for future housing need. Because they represent occupied housing units, the total number of housing units for any given year will be greater by the amount of the vacancy rate. Household characteristics also change as evidenced by the increase in single-parent families. The resulting housing needs impact the size, type, and location of units demanded by the population. Multi-family units near commercial areas often constitute the demand of singles or single-parent families and 'empty nesters'.

The demand for more affordable single-family and multi-family residences, generated by the commercial and industrial employment growth centers, has helped generate the development of many new subdivisions and apartment developments. New subdivision and apartment design has been uniform in suburban areas and has in the past offered little variation or innovation from one development to another. Recent development proposals have contained concepts that include landminiums, neotraditional single-family, and a greater variety of attached housing. Mixed-use, planned developments that provide a mix of housing options, commercial, office, and public uses with multiple transportation options (i.e. transit, pedestrian, park-and-ride) could be one strategy for meeting this demand (see Housing Densities in this element and the Land Use/Transportation Connection section in the Transportation Element). The local development community should be encouraged to examine other markets around the nation to uncover new trends that may be beneficial in Boone County.

### **Migration**

Migration is another factor that affects the amount of housing needed for future residents. In Boone County, 44.8% of the residents lived in the same house for the 5-year period from 2005-2010. This is slightly above Kentucky's average of 43.4 percent (2010 ACS Selected Housing Characteristics for Kentucky). Union's percentage of persons who lived in the same house has historically been the lowest in the county.

One attractive feature of Boone County that encourages people to move here has been rapid growth in commercial and industrial jobs, although a slowdown has occurred since 2001. Office development has decreased in comparison to the 1980's, mirroring a regional and national trend. Industrial growth is strongest around the airport and along the I-75 corridor south of Florence. Commercial developments continue to expand in the Houston Road area, while the Mall Road area continues to add replacements for vacant stores.

These industrial and commercial areas, along with the airport, constitute permanent, regional employment centers, and are acting as attractions for new residential development to occur within commuting distances. Several expansions of the airport, during the 1980s and 1990s, brought an in-migration of new residents, thereby creating a greater demand.

### **Age Composition**

With the exception of Walton, the County's incorporated areas and the unincorporated area, as a whole, have higher percentages of young and middle aged persons than Kentucky. Union has the highest youth and the lowest elderly percentages. Walton displays the lowest youth and the highest elderly percentages. **Table 2.10**, which appears in the Population Element, further shows the percentages for the remainder of the county and Kentucky. Boone County's population is becoming more elderly in proportion. This "graying" of the population will have an impact on housing demand. Many of these "empty nesters" will want to move out of their high-maintenance, large lot single-family homes and into condominiums, landminiums, or small lot single-family homes. This demographic shift, in part, engendered the recent development of the Elmcroft Senior Living center on Main St., in Florence, on the former site of the Florence YMCA.

### **Marital Status**

Marital status is another demographic characteristic useful in determining housing demand. Single elderly individuals, married couples with children, and single individuals with children have different housing demands than young adult, single individuals. In general, married couples live in single-family houses, while other groups tend to reside in multi-family or attached dwelling units. The cities of Walton and Florence have lower marital status rates than Union or the unincorporated areas of the County.

## **Economic Factors**

Economic variables of households also help determine housing demand in Boone County. Single family dwelling units tend to cost more than multi-family units. An exception to this are condominiums, which are owned dwelling units of a multiple unit structure. To summarize from the Economy Element, Boone County residents have relatively high income when compared to Kentucky averages, with Union being highest, followed by the unincorporated area, Florence, and Walton. According to the 2010 U.S. Census owner occupied dwelling units outnumbered renter occupied units in 2010 by approximately three to one. Duplexes and multi-family units tend to be renter-occupied while mobile homes are usually owner-occupied, but often located on rental lots.

An important factor in detached single-family housing development is the relative cost of a building lot. The rapid residential growth throughout the last 15 years has pushed the expense for developable land higher. This has strengthened the trend toward smaller residential lots as developers try to offset high land costs and provide a product which appeals to changing lifestyles. To date, these trends, as well as the slowing housing market, have resulted in very little attached housing or innovative clustering of detached dwelling units. The housing development industry faces many difficulties that affect the amount and price of housing. Recently, newer forms of single level attached housing have been constructed, where sometimes four dwelling units are joined by a hidden garage, and much attention is given to architecture and landscaping. The demand for detached single-family units is evident throughout Boone County, however, with the area between Burlington, Union, and Florence being the most active in terms of subdivision development. Innovative clustering techniques, which result in useable open space, may be helpful in meeting those demands.

Demand for multi-family housing has historically been in, or around Florence. The emphasis on new construction, however, has shifted to the unincorporated county. The continuing in-migration of a young, professional population combined with the increased growth of single-parent families and the overall graying of the population, means the demand for various multi-family housing options will continue in the future for Boone County.

Manufactured homes are an economical alternative to conventional and modular homes and have historically been in demand in the rural, western half of the county or in mobile home parks located mostly between Florence and Richwood. The zoning in the western portion of Boone County, however, often requires a minimum five acre lot size making this a less economical housing alternative with increased land prices. The heaviest concentration of mobile home parks is along the U.S. 25 corridor.

An economic variable essential to housing demand is the extent of poverty and areas where it is found. Summarizing from the Economy Element, Florence has the highest percent of individuals and families in poverty, followed by unincorporated Boone County, and Walton. Low cost housing needs to be located throughout the county so that it doesn't become more economically segregated. Housing assistance programs should be designed to help facilitate low cost housing in locations where it's needed.

## **Demand Summary**

Of the five factors discussed that affect housing demand, the population trends and migration characteristics dictate the number of housing units needed. The age and marital status, and economic factors affect the types and locations of housing development. In general, the demand for housing has dropped off considerably since 2008 but is slowly rebounding. In the last 5 years, subdivision growth has continued at a much slower pace than historical levels. Over that time, the bulk of subdivision growth in the county shifted away from areas of past residential growth and towards Union and the north Hebron area.

## **HOUSING SUPPLY**

### **Housing Type by Area**

**Table 6.2** indicates that the most densely populated, incorporated areas have the greatest amount of multi-family units. In 1990, with urbanizing areas in unincorporated Boone County, Florence had 56.4% of the multi-family units with approximately 34.1% of the gross population in the county. In 2000, with 27.4% of the population, Florence had 36.9% of the total multi-family units in Boone County. The proportion of area within the City of

Florence to the area of Boone County has increased with annexations. The amount of land in Florence, however, still comprises a very small area compared to the unincorporated county. In 2000, 52.7% of Florence's housing stock was comprised of multi-family, while Boone County increased from 16.5% multi-family units in 1990 to 29% in 2000, and 27.7% in 2010. The data shows that this trend appears to have leveled off because of the tremendous rate of small lot detached unit development occurring in several parts of the county. Housing data for cities is not yet available from the 2010 census. However, county-level data show that single family and multi-family housing continues to grow. Conversely, the number of mobile homes has dropped back to just below the number in 1990, a decrease of over 600 units since 2000. This is a result of the displacement of a few mobile home parks in Boone County that have occurred over the past 10 years.

The percentage of multi-family in the unincorporated area of the county increased from 16.5% to 29.2% from 1990 to 2000 while the percentage in Florence increased from 41.9% to 47.0% from 1990 to 2000. Much of this growth can be attributed to condominium development. 49.2% of the multi-family construction in Boone County and 43% of the multi-family construction in Florence in the same period were condominium units. Unincorporated Boone County has also maintained the highest percentage of mobile homes during this same period.

**TABLE 6.2 HOUSING UNIT TYPES BY JURISDICTION**

	Single-Family			Multi-Family (& SF attached)			Mobile Homes			Totals		
	1990	2000	2010	1990	2000	2010	1990	2000	2010	1990	2000	2010
<b>Florence</b>	4,209 30.2%	4,808 22.2%	N/A	3,060 56.4%	5,399 58.4%	N/A	31 1.6%	45 1.9%	N/A	7,300 21.9%	10,252 30.7%	N/A
<b>Union</b>	307 2.2%	867 4.0%	N/A	3 <0.1%	5 <0.1%	N/A	2 0.1%	2 <0.1%	N/A	312 1.5%	874 2.6%	N/A
<b>Walton</b>	548 3.7%	751 3.5%	N/A	240 4.4%	542 5.9%	N/A	12 0.6%	7 0.3%	N/A	800 3.8%	1,006 3.5%	N/A
<b>Unincorp Boone</b>	8,846 63.9%	15,260 70.4%	N/A	2,122 39.1%	3,593 38.9%	N/A	1,860 97.6%	2,351 97.8%	N/A	12,828 60.4%	21,219 63.6%	N/A
<b>Total</b>	13,910	21,686	33,307	5,425	9,239	11,056	1,905	2,405	1,897	21,240	33,351	46,260

*Source: Boone County Building Inspection Data & U.S. Census*

### Housing Type by Municipality

It should be noted that the number of housing units increased in all the major housing construction types for each municipality, except multi-family units in the City of Union. County-wide, the percentage of total housing units that are single-family detached units, has decreased while multi-family units have increased in percentage. The City of Florence has a lower percentage of single-family units than other areas of the county.

In 1980, multi-family housing comprised 20.9% of the total housing units in Boone County. This percentage continued to rise as the county urbanized and stood at 25.5% in 1990 and 27.7 in 2000 (see **Table 6.3**). This was during a time of enormous growth in single-family housing development. This increase in multi-family housing happened primarily in the unincorporated part of Boone County. Since 2000, the percentage of multi-family decreased to 23.9. The percentage of mobile homes throughout the county has decreased steadily since 1990 and now stands at 4.1% of the total 46,260 housing units in the county in 2010.

### Values

The median value of a single family housing unit in Boone County in 1990 was nearly \$74,300; by 2000 the value had risen to \$131,800. As of 2010 the median value was \$182,300. These figures include the cost of the structure, but not the land cost. According to the building industry a general rule of thumb is that the lot value is typically around one-fifth of the total home cost. The Home Builders Association has estimated the increase in local income, taxes, revenue, jobs, and overall local economic impacts in its Metro Area Impact of Homebuilding. The study was conducted in 2004 and was based on a model developed by the National Association of Home

Builders. The model captures the effect of the construction activity, the impact that occurs from construction activity earnings, and the impact of new home occupancy.

**Table 6.3 PERCENT HOUSING UNIT TYPES BY JURISDICTION**

	Single-Family			Multi-Family			Mobile Homes		
	1990	2000	2010	1990	2000	2010	1990	2000	2010
<b>Florence</b>	57.7	46.9	N/A	41.9	52.7	N/A	0.4	0.4	N/A
<b>Union</b>	98.4	99.2	N/A	1.0	0.6	N/A	0.6	0.2	N/A
<b>Walton</b>	68.5	74.7	N/A	30.0	24.1	N/A	1.5	0.7	N/A
<b>Unincorporated</b>	68.9	71.9	N/A	16.5	16.9	N/A	14.5	11.1	N/A
<b>Boone County</b>	65.5	65.0	72.0	25.5	27.7	23.9	9.0	7.2	4.1

*Source: Boone County, Florence & Walton Building Inspection Data & U.S. Census*

In 2003, 1,363 single-family homes were permitted in Boone County. The estimated one-year benefits to the metro area as a result of this construction included \$107.3 million in local income, \$9.9 million in taxes and other local government revenue, and 2,237 local jobs. The estimated recurring impacts in subsequent years include an annual impact of \$33.4 million in local income, \$4.8 million in taxes etc., and 754 local jobs.

In 2003, 394 multi-family units were permitted in Boone County. The estimated one-year benefits to the metro area as a result of this construction included \$22.6 million in local income, \$2.4 million in taxes and other local government revenue, and 459 local jobs. The estimated recurring impacts in subsequent years include an annual impact of \$9.7 million in local income, \$1.4 million in taxes etc., and 205 local jobs. U.S. Census Building Permit data for 2010 show that 392 single family unit permits were reported, along with 6 additional multi-family.

Average rental payments follow a similar pattern, being highest in the unincorporated parts of the county where the relatively newer multi-family housing units are located. Rents in Florence remain high also because of the high demand and the convenience of the location.

**Age**

According to the 1990 Census, 6.8% of Boone County's housing stock was constructed before 1940. The rapid growth in new housing development becomes very apparent considering that the 1980 Census showed 12% of the County's housing stock was built before 1940. In contrast, the 2010 totals indicate that 49.7% of all Union housing units, and 25.2% of all Boone County housing units were constructed between 2000 and 2010.

**Table 6.4** indicates the total number and percent of housing units constructed during four time periods. Over 77% of all existing housing units in Boone County were built after 1969. It is clearly evident that Boone County's overall housing stock is not very old. However, the houses of the early subdivisions of the 1950s and 1960s should see a major transition in ownership patterns as the original owners proceed from retirement to old age and consider the need for other housing options (i.e. condominiums, retirement homes).

The statistics in **Table 6.4** show that over half of Boone County's housing units were constructed during the 1990's and 2000's, including 82.6% of the units in Union. Walton contains the highest percentage of pre-1940 units, while continuing to grow primarily on the north end of town with annexations. Florence has also continued growth on land annexed over the last couple of decades.

**TABLE 6.4 HOUSING UNIT AGE BY MUNICIPALITY**

	1939 & Earlier		1940-1989		1990-1999		2000-2010		Total
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	
<b>Florence</b>	246	1.7	7,090	48.7	2,986	20.5	4,244	29.1	14,566
<b>Union</b>	9	0.5	305	16.8	597	32.9	901	49.7	1,812
<b>Walton</b>	213	15.9	588	44.0	254	19.0	282	21.1	1,337
<b>Unincorp.</b>	999	3.4	12,026	40.4	10,192	34.2	6,542	22.0	29,759
<b>All County</b>	1,467	3.1	20,009	42.1	14,029	29.6	11,969	25.2	47,474

*Source: U.S. Census, Boone County GIS – not counting demolitions*

**Growth Patterns**

The City of Florence has grown mainly through annexation of new development property to the west and south. Plantation Pointe and Orleans Subdivisions are prime examples of new developments annexed into the city primarily for urban services such as sanitary sewer. Infill and redevelopment will occur in the central parts of Florence.

Important public improvements in the City of Florence will impact the quality of life of its citizens in the future. These public improvements are exemplified by the Florence Nature Park, the new Stringtown Park, the Florence/Boone County skate park, the Florence Family Aquatic Center, South Fork Park, Ewing Boulevard, the Florence City building, Main Street Improvements and Plan, and the implementation of the 2002 Pedestrian/Bike Path Plan.

The other major residential growth area in the county has been the North Hebron area. Tree Tops, Thornwilde, Wyndemere, Deer Creek, and Northpointe Subdivisions have experienced growth since the 2005 Comprehensive Plan, and new subdivision activity has begun off of Graves Road. This area will continue to fill in, especially with completion in 2010 of the reconstruction of North Bend Road (KY 237), although most of the developable land is accounted for, and remaining undeveloped land contains rough terrain. Since the end of 2006, Boone County GIS indicates that 262 housing units have been built in the North Hebron area (north of I-275), while 292 have been constructed in Hebron (south of I-275). In North Hebron, this activity is spread fairly evenly across several subdivisions while the activity in Hebron has occurred in Sunchase Meadows and Sundance Estates. The Williams Road corridor should be considered in the long range planning for this area as a future residential growth corridor if water, sewer, and access can be provided.

**Occupancy**

Overall, the county had a 6.3% vacancy rate in 2000. **Table 6.5** provides a further analysis of the occupancy rates since 2000 for active residential subdivisions by housing type. Multi-family housing in Florence and Walton have had low vacancy rates, revealing the high level of demand for these units in these areas. However, the vacancy rate for multi-family housing units in unincorporated Boone County often is higher because of the number of new units that are available.

**TABLE 6.5 PERCENT HOUSING OCCUPANCY**

	2000		2010	
	Owner	Rental	Owner	Rental
<b>Boone County</b>				
<b>Kentucky</b>	97.7	92.1	93.6	90.7
	93.4	88.5	89.2	90.5

*Source: American Community Survey 2010*

### **Other Characteristics**

Other characteristics of the housing stock include heating, bathrooms, kitchen facilities, telephones, water source, and sewage disposal. This discussion is based on the 2010 Census. Only about 2% of the homes in the county are without any heating units. While this value is very low, every household should have some sort of heat. Only 1% of the homes are without complete kitchen facilities. There are some homes without telephones; however, in the age of wireless communication, this condition will increasingly be one of convenience rather than poverty.

In general, the supply section concludes that the existing and planned housing units will meet the growing population's need as developers become increasingly aware that Boone County is one of the top building opportunity areas in the Cincinnati metropolitan area and in the State of Kentucky.

## **MEETING HOUSING NEEDS**

The remainder of the Housing Element is devoted to examining ways the county can meet housing needs. The Goals and Objectives of this Plan advocate a planned effort to meet the broad range of housing needs and desires of the present and future populations. The Housing Element is coordinated with the Plan's other elements in order to provide a framework for the Future Land Use Plan.

### **Population Needs**

The major reason for Boone County's rapid population growth is in-migration. Often the higher income families (or new population) locate in the developing rural areas of the county. While this is practical because they can afford the estate lifestyle and cost of transportation over greater distances, this spatial phenomenon separates people of different income levels. A variety of housing opportunities within the established urban areas and within developing areas would encourage some of the higher income residents to reside there and thus encourage mixing of different income levels. Therefore, single-family housing should remain an ingredient of the urban areas instead of being targeted only for rural or suburban areas. Large, left-over parcels in urban service areas are well suited for planned residential development that includes high density housing. However, established single-family housing areas in urban settings should not experience an influx of multi-family or duplex construction unless adequate buffering or proper development design can be provided. Housing for the elderly population or for those who are handicapped needs to be located near public transit, commercial areas, and public facilities.

### **Existing Supply**

Housing stock that has redeeming qualities or that can be rehabilitated without much effort or expense should be retained. Additional residential development should reinforce this existing housing stock wherever possible. In some cases, existing houses should be incorporated into new subdivision design. There are concentrations of older housing stock in need of restoration or rehabilitation in many of the established small communities, including areas like Belleview-McVile, Burlington, Constance, Hebron, Petersburg, Stringtown, Taylorsport, Union, Verona, and Walton.

### **Housing Types**

Although single-family homes are by far the most numerous, they continue to decrease in their percentage of total Boone County housing. Most new construction of single-family housing will take place on the outer rings of growth. The Union area has a high percentage of single-family housing. Nearly 83% of all units in Union were constructed between 1990 and 2001. The focus of new housing has been in the Union Town Plan area since 2005 and this trend will likely continue for the foreseeable future. Large lot areas, including Union, will see multi-family construction, although this higher density development should occur close to highway arterials and urban services and be sensitively developed in terms of building height, setbacks, mass, and visual impact. Throughout Boone County, high density developments should be close to thoroughfares to achieve a gradation of building site dimensions and land uses outlined in the Future Land Use Plan.

Multi-family housing developments should have convenient access to commercial districts or should provide their own supporting commercial uses. The developments should be designed to offer the shortest trips to the most people. High density residential developments help to hold down the cost of individual units due to many

variables including lower land cost per unit, lower land development cost and building unit costs per unit. Clustering of the dwelling units allows this by requiring less site work and utility construction. Better design can correlate with more density, and walkable, multi-modal communities. This also provides a supply of affordable housing for county residents.

Modular housing is becoming a major factor in the nationwide housing supply. Boone County and Kentucky in general have not seen the influx of modular housing that has occurred in other areas of the country. The Northern Kentucky housing market matured enough in the 1990's that more types of modular housing are appearing. Modular homes add to the variety of housing supply, and can lower the cost of construction to help offset rising land costs. Currently, modular houses are permitted in any residential zoning district in Boone County, and can occur separately or in a subdivision, unless regulated by private deed restrictions or restrictive covenants. Modular housing is typically brought to the building site in several components, and its construction is inspected on site by the local building inspector under the respective State Building Code. These units should not be confused with manufactured homes, more commonly referred to as mobile homes, and/or double-wide mobile homes. Mobile homes are inspected in the factory under the Federal Mobile Home Construction and Safety Standard (H.U.D. Code).

The percentage of duplex units in Florence was only 3.2% in 2000. This has decreased in recent years largely because of low interest rates and the boom in single-family construction. Duplexes are often more successful than multi-family housing in blending in with single-family residential surroundings. Therefore, when buffering is minimal between single-family housing areas and proposed multi-family units, an appropriate transitional area of duplexes may be designed.

It is important to offer a variety of housing units, not only in terms of economics, but also because of the county's demographics. As stated previously, the youthful population, divorcees, and elderly often select a multi-family unit or manufactured home to satisfy their housing needs. In the case of the young, this housing provides their first independent housing unit. In order for Boone County to retain its youth, the county must provide both jobs and housing, otherwise, an out-migration of the young and educated population will occur. Divorcees often select multi-family housing immediately following a separation. Elderly select these units for reasons usually related to economics and the need for a secure environment near their daily needs. The variety of multi-family housing includes nursing homes, retirement housing, apartments, townhouses, and condominiums all ranging greatly in price per unit. These types of units are increasing in demand outside of the established urban areas. As the county's population ages and land values rise, the need for higher density residential and planned unit developments will likely increase.

### **Assisted Housing**

The Section 8 Housing Rental Assistance Program began in 1975 with an allocation of 110 certificates. This program is operated by the Assisted Housing Department in Boone County and helps low to moderately low income families pay their rent. That department also assists 20 families with a home ownership program. The tenant pays 30% of their gross monthly income towards their rent. Deductions are incorporated such as medical expenses for the elderly and disabled, and qualified child care expenses for families. As of 2011, the county has an allocation of 978 vouchers. There are approximately 185 landlords renting units under this program. There are more vouchers in the City of Florence than in the unincorporated county, however, the proportion has been decreasing over time.

### **Affordable Housing and Homelessness**

The previous section discussed the need for a variety of housing units for the special needs of specific demographic groups: young, unmarried adults, divorcees, and the elderly. A high percentage of these groups need truly affordable options other than traditional single-family homes. In order for Boone County to retain its youth, the county should strive to provide jobs and a variety of attached housing, as well as innovative clustering of detached dwelling units.

During the last decade, housing construction in Boone County has occurred mainly in the mid-value range, with some high-end for both single-family and multi-family housing. However, attempts at more affordable single-

family or apartment construction often meet with localized hostility. Creative site design and architecture can help overcome some of this resistance. Historically, the existing rental market is not adequate to meet the need as evidenced by the *Northern Kentucky Housing Needs Assessment* (October 1993, prepared by Northern Kentucky Housing & Homeless Coalition/Northern Kentucky Housing Partnership). This report stated that because of demand, the Boone County Section-8 program had a waiting list of over 300 people with an estimated wait of one and a half to two years. This has improved dramatically; now the average waiting period is only two months.

In 1991, the Boone County Task Force on Homelessness published a report that recommended a holistic approach that would coordinate the existing services and agencies already providing for the needs of the homeless. The report also stated the following:

*Some needs are not currently being provided for and should be addressed. An example of such a need is the alarming and growing need for affordable housing in the Boone County Community. In terms of percentages of total housing, available housing at the low and moderate end of the cost continuum is actually shrinking in Boone County. This trend needs to be reversed.*

The report recommended that the county facilitate affordable housing development through non-profit housing organizations, such as Habitat for Humanity. It also stated that the key to solving homelessness is affordable housing. It recommended possible land reservations by developers, creation of a non-profit land trust, tax incentives, and the adjustment of zoning codes towards smaller lot sizes and higher densities to encourage the development of affordable housing.

The Kentucky Housing Corporation's 2010 Kentucky Statewide Point-in-Time Count of Homeless Persons lists Boone County's total homeless population as 116, of which 74 were children. In terms of total homeless individuals, Boone ranked third in Region 3, behind Kenton and Campbell counties, but ahead of the other 11 counties in the region. The homeless count is grouped by level of shelter as follows: *Emergency* refers to temporary housing for people who do not have a place to stay, *Transitional* is time-limited (e.g., 24 months) housing provided with a goal of transitioning residents to permanent housing, and *Unsheltered* refers to places not meant for human habitation (cars, parks, etc.). Of Boone County's total 2010 county, the majority (n=101) were considered Transitional homeless. The balance of the count represented Emergency homeless (n=4) and Unsheltered (n=11) individuals. Among children, 72 were living in Transitional housing and 2 were Unsheltered. The percentage of homeless children in Boone County (62.1%) is much higher than the 2010 statewide average of 18.4%.

### **Housing Densities**

High density residential areas should be located sufficiently near and with convenient access to major streets, highways, and shopping and public facilities. A progression of densities of residential uses from high (multi-family) to low (single family) shall be encouraged. Where traditional progressions of high to low net density are not possible through creative development design, an appropriate and attractive visual transition should be achieved. This could include existing vegetation or new landscaping and/or fencing. Existing vegetation (such as wooded fence rows) should be retained as much as possible to provide buffer strips and stormwater filters. This serves a dual purpose in that woodland is becoming relatively scarce in the eastern uplands of the county, and these areas buffer different land uses. Housing that is proposed on smaller, remnant tracts needs to be carefully designed.

Housing development density has become an issue of concern to many existing residents in established, large lot subdivisions in suburban Boone County. Many of these areas developed during the 1960's to the 1980's when land prices were relatively low, few utilities were present, the surrounding land was agricultural, and urban/suburban development had not yet extended out to these areas. Many of these older subdivisions contain two-acre lots or larger. By contrast, most new subdivisions in Boone County are developing at around three units per acre and sponsor sewer construction if sanitary sewer is not currently available to the site. The issue arises when these new higher density subdivisions are proposed near established low density areas and centers mainly around development impacts on infrastructure and the residential character of the area.

In order to support the densities needed to sustain mass transit as proposed in OKI's Regional Transportation Plan, and to foster new affordable housing options, average minimum densities should be encouraged for mixed-use, planned developments. This would allow a variety of housing types but also enable a logical progression of intensities. The highest residential densities would be in the activity centers of these mixed-use developments. The Mall Road Study presents the opportunity for such development in that predominantly commercial area. These activity centers would also include neighborhood commercial, employment, and public uses, as well as transit stations or stops.

### **Open Space Subdivision Design**

The design of true open space housing development should be encouraged as an alternative to the conventional subdivision divided entirely into ownership lots. To accomplish this, densities within portions of a site can be increased while the overall intensity on the site can remain basically the same. Topography, vegetation, and public improvement costs reduction should be incentives for open space design. Provision is made in the zoning and subdivision regulations for true open space design to occur under existing zoning. By increasing densities and clustering on portions of a site, these planned developments will preserve green space and/or provide space for public facility or recreation opportunities. The overall intensity of units per acre on the whole site becomes the issue to consider when evaluating public services and relationship to the Future Land Use Map. All residential developments should be designed to preserve and utilize natural site features wherever possible.

The most common method of designing a residential subdivision in suburban areas like Boone County is to calculate the most lots that can be fit within the geometric shape of the development site and modify according to efficient street layout and grading needs. To achieve true open space subdivisions, however, the review process needs to include more pre-application meeting work and preliminary plans need to be designed in the following steps:

1. Evaluate the subject site for natural/historic areas or views that make the site special;
2. Set these areas aside to be designed into the development;
3. Select home building sites to take advantage of access to these features or views;
4. Design a road and utility system to serve the planned homes;
5. Create lot lines to encompass the home sites, leaving the features under common ownership for recreational or green space purposes.

Open Space Subdivision design should be encouraged by creating incentive programs. A detailed study should be conducted involving the development community, land owner interests, and local government to review the existing ordinance, revise as necessary, and determine the incentives and geographic areas in which to encourage this type of residential development. A density bonus could be considered as a possible incentive. However, the ordinance standards should also be strengthened and a minimum size requirement of an open space subdivision considered. The selection of geographic areas during the study process should be based on specific criteria.

### **Transit Oriented Developments**

An excellent model for mixed-use, planned developments is the concept of Transit Oriented Developments (TODs). The Land Use/Transportation Connection part of the Transportation Element discusses the important transportation attributes of TODs if transit hubs or centers were to develop in Boone County. This includes multi-modal aspects (i.e. facilities for transit, automobile, pedestrian, and bicycle are provided) and inter-modal aspects (i.e. there is an easy access and transition for users of one mode of transportation to another).

TODs would also offer attractive and affordable housing options. The range of housing options could vary from apartments above commercial uses in the activity centers (up to 30 dwelling units/acre); nearby garden apartments (10 to 20 dwelling units/acre) and condominiums (6 to 15 dwelling units/acre); small-lot single family houses (at 7-10/dwelling Units/acre); and finally, at the edge of the development, standard lot, single-family houses (at 3-4 dwelling units/acre). All sections of a TOD development are directly connected with a prominent pedestrian system, and are easily accessible to commercial and public land uses.

### **Airport Noise Impacts on New Residential Development**

Since the opening of the north/south Runway 18L-36R in 1991, airport noise impact on existing residential development has been a topic of discussion between the airport and the community. The Supplemental PART 150 Study's Noise Mitigation Program addressed the noise impacts generated by the 1991 runway and the extension to the east/west runway, 9/27. The most recently adopted, year 2004, FAR Part 150 Study Update recommended a new Noise Compatibility Program (NCP). This Program is discussed in the Transportation Element.

The Airport Master Plan, currently being updated, still considers an additional future runway. This east/west runway on the southwest side of the airport near Burlington may ultimately end up being removed from the Airport Master Plan. An east/west alternative would likely impact many residential subdivisions as well as the National Historic Register District in Burlington and three school facilities.

It is important that the construction of new residential development, that would be built in areas impacted by high airport noise levels (65DNL plus), should have stipulations that would mandate that builders in these developments construct their buildings with materials that would reduce excess noise from the outside. The general guidelines for new residential construction within 65 DNL or greater is that it should be built with enough sound insulation to provide an outdoor to indoor Noise Level Reduction (NLR) of at least 30 decibels, and 35 decibels if the outside area is within 70 DNL.

### **A SUSTAINABLE BUILT ENVIRONMENT FOR THE FUTURE**

The planning horizon for this comprehensive plan is 25 years into the future. The future overall pattern of development, as well as the specific building techniques, materials used in construction, and the design of communities, should evolve into a built environment that is sustainable from generation to generation. The pattern of development should be more compact, with most development being built in the mixed-use, transit-oriented model described in this element and in the Transportation Element. However, financial burdens of such development must be considered, especially in light of the downturn in the housing industry seen over the past several years.

The housing industry has undertaken market driven conservation measures (i.e. "green movement") in building design and construction, including energy efficient doors, windows and appliances, low water usage toilets, greater insulation features in house wrap and wall batt, OSB wallboard and plastic lumber, and improved HVAC systems. Additionally, most new homes tend to be built on much smaller lots. Many builders also include a landscaping package in the overall price of the new home. However, added to the sustainability model would also be the use of indigenous building materials that could include locally produced lumber products and even rammed earth. Use of indigenous materials would have the intrinsic advantage of creating a new local building material supply industry, as well as substantial energy savings from not having to transport materials from distant parts of the country. Another important part of the sustainable model would be the siting and design of new buildings so that the renewable energy of the sun would be maximized. Older buildings should be retrofitted with insulation and solar technology to become energy efficient.

### **GEOGRAPHIC HOUSING ISSUES**

*The following findings should be considered during the planning of the Future Land Use Element:*

**North River/I-275 corridor area** - North Bend Road has been upgraded to better serve development in that corridor, including the continuation of Thornwilde and the new Rivers Pointe Estates. The flat North Bend Bottom area and other river bottoms should be reserved primarily for their present agriculture, or for appropriate residential, recreational, or employment uses that further enhance the riverfront resource without placing development in flood prone areas. Hillside development guidelines should be followed in this area to properly locate structures and avoid complete clearing of natural vegetation along the tops of hillsides so that development

does not overwhelm the public view. The Williams Road area should be evaluated in the Land Use Element for future residential growth, if infrastructure can be provided.

**Hebron/Idlewild area** - The new north/south airport runway has eliminated several existing subdivisions from the KY 20 corridor, east of Hebron. These include the Laurel Drive area, the part of Hickory Glen Subdivision south of Conner Road, Sycamore Drive, and Ada Lane. The growth along KY 20 in the Bullittsville area will continue. As demonstrated in Burlington where many Ethan's Glen residents relocated to subdivisions in that area, some Laurel Subdivision and Hickory Glen Subdivision residents may have relocated to new subdivisions west along KY 20.

**Turfway/Mineola area** - Rolling Green Acres Subdivision contains only a few houses after airport buyouts, and the zoning is industrial. The Bel-Aire Acres Subdivision area is currently zoned residential, but is planned for Business Park uses in the long term. Although the Marydale property along Donaldson Road and Houston Road is mostly planned for office development, some high density residential uses could be mixed in to provide a transit oriented center.

**Florence/Burlington area** - The undeveloped land on the southwest quadrant of KY 18 and KY 237 would be an excellent site for a transit-oriented, mixed-use planned development, even with the planned future urban interchange at this location. New subdivisions throughout the west Florence and Burlington areas should provide interconnections between their developments and adjacent developments to promote safe and easy transportation access. Overall, the KY 18 Corridor represents a prime opportunity to promote high density residential uses in a transit corridor.

**Petersburg/Belleview/western Boone County area** - The existing road conditions in this area are not suitable for large scale residential development. The historic character of Petersburg, Belleview, and McVile should be preserved. Localized Transfer of Development Rights programs or a new type of zoning could be investigated for areas immediately surrounding these towns to continue the grid pattern of the towns while resulting in little housing development on the hillsides or bluff areas. Open Space Subdivision design should be the norm rather than the exception in this area. Sewer for these town expansions should go to the nearly completed Sanitation District Number 1 (SD1) Western Regional Water Reclamation Facility, but not serve additional areas.

**Florence/U.S. 25 corridor** - Florence has taken steps, particularly through annexation, to include new developments in its housing supply. Beyond 2030, however, it will be difficult for the City to continue to grow geographically as the center of the county becomes fully developed and extensive infrastructure is in place. Florence has to continue to stabilize and improve older housing stock. There will likely be a major transition in ownership patterns for the houses of subdivisions built during the 1950s and 1960s, with an accompanying trend of remodeling and renovation to better serve the needs of the new owners. A plan should be conducted by the Planning Commission and City of Florence that inventories and determines methods of keeping good maintenance and vitality in these older single-family subdivisions. This plan should include a detailed survey of housing stock, property valuation survey, analysis of landlords and property ownership, and the length of residency. Any infill housing that occurs should fit in with the existing character of the area. The plan must contain specific implementation steps to be taken to keep neighborhoods clean, well kept, and safe. South of Florence to Mt. Zion Road, industrial development, associated with the Northern Kentucky Industrial Park, will be predominant. South of Mt. Zion Road, the expansion of existing and the building of new mobile home parks have constituted most of the housing units in this area. However, apartments near the Mt. Zion interchange shows that residential development momentum is greater west of I-75. Near Richwood, single-family residential development will be limited to the immediate Maher Road area. This road should be upgraded if significant residential developments are planned.

**Union/west Florence/west Richwood area** - The factors that helped fuel growth in this area include the improvements to U.S. 42 from Florence to the Ryle High School campus near Frogtown Road; the extension of water and sanitary sewer lines, access to the interstate highway system, and the vast amount of developable land. The Union Town Plan sets the stage for development in this area as sanitary sewer has become widely available. Areas west and south of the Union Town Plan area, along U.S. 42, Hathaway Road, and Longbranch

Road, contain an existing agricultural, horse farm, and estate residential character. Planning efforts, such as the Union Town Plan should be conducted in these areas. Street connections between developments and to arterials are critical in this central part of Boone County. The connections shown in the Union Town Plan need to be continued outside the study area to the next logical properties and arterial roadways. The Frogtown Road and Richwood Road corridors have experienced significant residential construction with very little improvement to the existing roadways. Triple Crown sets a good example with its central, limited access boulevard that connects these two state-maintained roadways. However, other existing roads in the area, such as Hicks Pike and Chambers Road are designed for less traffic. Significant improvements to these roadways will be needed to support extensive growth. Future development in this area should be sensitively designed to minimize impact on existing low density residential land uses, and connecting routes that take traffic off existing roadways should be encouraged. Boone County should be encouraged to work closely with the Kentucky Transportation Cabinet to improve existing roadways.

**Rabbit Hash/Beaverlick area** - Future growth around Rabbit Hash should be predominantly single-family but should respect the historic character of the area. Typical suburban subdivision development that is occurring in the Florence and Union areas is not appropriate for this part of the county. Open Space Subdivision Design is one way to accomplish these objectives. The Ohio River views and significant hillsides that may become attractive to builders should not be developed to the extent that the rustic character of the area is lost.

**Walton/Verona area** - Walton has annexed several areas north and west of the city to provide public water service and experienced significant subdivision development during the last decade. Verona will see mostly single family homes, and some small subdivision activity.

## CONCLUSION

The areas of greatest projected population growth are in the Richwood/Union area, the Burlington area, south along I-75, and in the northern Hebron area. The western and southern sections of Boone County are projected to experience less population growth and less of a housing need. As noted previously, there is a desire of the population to live in rural areas that are convenient to the centers of commercial activity. This suggests a continuation of the outward movement of housing construction from the general Florence area. This movement is accelerated directionally by major thoroughfares such as KY 18, KY 237, US 42 and interstate interchanges. Residential development should occur near established urban or suburban areas. This will be an increasingly important issue as public water service is planned and implemented for the western parts of Boone County. For residential development to occur in these outlying areas, adequate and proper infrastructure must be provided, and impact on the natural environment must be minimized. If significant residential, large lot subdivision development does occur in some of these western areas, roads and other infrastructure will have to be improved.

Development in established areas takes advantage of existing services and minimizes future strain on the transportation network. The Public Facilities Element shows the existing and planned water lines and other services which will influence the locations of new residential construction. The plans for sanitary sewer for Boone County are of particular importance when high density residential development is reviewed. Stormwater management is becoming a key issue with the extensive residential development in the county and needs to be addressed creatively to solve runoff and erosion problems, while creating visually appropriate facilities.

If public water and sanitary sewer infrastructure is implemented in currently rural areas, there would be demand for suburban subdivision densities. Just because one form of public infrastructure has been improved, however, does not mean the area is ready for suburban development. Other forms of infrastructure must also be provided as necessary. It is possible that some areas of the county are not suitable for suburban or urban density, or may be suitable later in the twenty-five year planning horizon. Development phasing is an option to enable the timing of new development to correspond with the provision of adequate infrastructure. In addition, new subdivision development should include design considerations and gradation of lot sizes (or both) to lessen the impact on the character of the area. "Bands" of residential lot sizes may be a model to consider in order to ensure compatibility. This is particularly true in areas of agricultural zoning and could include larger lots or green space along the main

road(s), larger lots or a buffer along adjacent low density residential uses, strategic open space, and detailed attention to the orientation of housing units. The bottom line is that infrastructure partners must work together and correlate improvements in order to ensure capacity.

In general, residential development has occurred at a lower density than planned in the Future Land Use Plan over the last several comprehensive plan updates in Boone County. The development has predominantly been in a limited variety of product, typified by mid-range value single-family subdivisions at approximately three units per acre. The demand for this product will remain strong throughout the 25 year Comprehensive Plan planning horizon with some attached housing designed into larger planned developments. However, Boone County should remain open to potential changes in the market and design of housing in the coming years as the demographics and economics of the county change. Increased density does not necessarily negatively impact the quality of a community or nearby home values. Neotraditional, true mixing of unit types, connection to green space, and similar concepts of neighborhood design have been considered by the development industry in Boone County. These newer concepts are needed to enable the development industry and local government to address density concerns and strengthen the sense of community, as well as meet the housing demands of a changing population.